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ABSTRACT

A study investigated the influence of goal setting and progress feedback on self-efficacy and writing achievement among gifted children. Thirty-three fourth graders who previously had been identified as academically gifted in language arts received writing strategy instruction over 20 sessions and were given a goal of learning to use the strategy or of writing paragraphs. Half of the strategy goal children periodically received feedback on their progress in strategy learning. Results showed that the strategy goal with progress feedback exerted the greatest impact on achievement and motivated students to apply the strategy, which increases skills and transfer. The strategy goal without progress feedback provided some benefits compared with the paragraph goal. Results indicate that providing gifted students with a goal of learning a writing strategy and giving them feedback on their progress raises achievement outcomes. (One table of data is included; 40 references are attached.) (Author/SR)

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Goals and Feedback During Writing Strategy Instruction with Gifted Students

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Abstract

This study investigated the influence of goal setting and progress feedback on self-efficacy and writing achievement among gifted children. Fourth graders who previously had been identified as academically gifted in language arts received writing strategy instruction over sessions and were given a goal of learning to use the strategy or of writing paragraphs. Half of the strategy goal children periodically received feedback on their progress in strategy learning. The strategy goal with progress feedback exerted the greatest impact on achievement outcomes to include transfer. The strategy goal without progress feedback provided some benefits compared with the paragraph goal. Future research suggestions and implications for classroom practice are discussed.

Goals and Feedback During Writing Strategy Instruction with Gifted Students

There is much evidence that goal setting promotes motivation and learning (Bandura, 1986; Locke & Latham, 1990). The effects of goals are not automatic, however, but rather depend on goal properties: specificity, proximity, difficulty. Goals that denote specific performance standards, are temporally close at hand, or are viewed as difficult but attainable, usually enhance performance better than goals that are general (e.g., "Do your best"), temporally distant, or perceived as very easy or very difficult (Schunk, 1991).

The effects of goals on behavior also depend on perceived self-efficacy, or personal beliefs concerning one's capabilities to attain designated levels of learning or performance (Bandura, 1986, 1988). Self-efficacy is hypothesized to affect choice of activities, effort, persistence, and achievement. When students adopt a goal, they may experience a sense of self-efficacy for attaining it. As they pursue goals, they are apt to attend to instruction, persist, and expend effort, all of which increase achievement. Their initial sense of efficacy is substantiated as they work on the task and observe goal progress because perceived progress conveys they are becoming skillful. In turn, heightened capability self-evaluations sustain motivation and lead learners to establish new goals when they attain their present ones (Schunk, 1991).

Goals often involve such outcomes as quantity of work or amount of time spent (Bandura & Schunk, 1981; Morgan, 1985; Rosswork, 1977; Schunk, 1991). These product goals concern what students should know or accomplish as a result of learning. In contrast, process goals involve techniques and strategies students use to promote learning (Weinstein & Mayer, 1986). A process goal might be to learn to use a learning strategy, which is a

systematic plan for improving information processing and task performance (Paris, Lipson, & Wixson, 1983). Research in various domains shows that students taught strategies typically improve their skills (Borkowski, 1985; Borkowski, Estrada, Milstead, & Hale, 1989; Pressley et al., 1990; Romberg & Carpenter, 1986), and that use of effective strategies relates positively to self-efficacy (Pintrich & De Groot, 1990; Zimmerman & Martinez-Pons, 1990).

In a recent study, Schunk and Swartz (1991) explored whether strategy instruction improved writing among children who received language arts instruction in regular classes. Research has yielded mixed results on the effects of strategy instruction on writing (Scardamalia & Bereiter, 1986). Students who learn a writing strategy may have difficulty applying it or not apply it consistently. This study also compared the effects of process and product goals. The goal of learning a strategy fits well with contemporary views of writing as a problem-solving process that can be taught (Flower & Hayes, 1981; Scardamalia & Bereiter, 1986), but research comparing process with product goals is lacking. A third purpose was to investigate transfer of strategy use and writing skills. This focus was important because many strategy instruction studies find little evidence of transfer (Borkowski, 1985; Pressley et al., 1990).

Schunk and Swartz (1991) also examined the role of self-efficacy. Compared with students with low efficacy, efficacious students are more likely to choose to write and expend effort and persist if they encounter difficulty. In turn, successful writing enhances self-efficacy for continuing to write well. Graham and Harris (1989a, 1989b) found that strategy instruction improved learning disabled students' skills, efficacy, strategy use, and transfer, and Shell, Murphy, and Bruning (1989) obtained a positive relation between self-efficacy and writing achievement among adults, but efficacy research was lacking with elementary students in regular classes.

Schunk and Swartz gave children strategy instruction and a goal of learning the strategy (strategy/process goal), of writing paragraphs (paragraph/product goal), or of working productively (general goal). Half of the strategy goal children periodically received feedback on their progress in learning the strategy. Feedback was given because it was felt that children might have difficulty determining progress on their own and perceived progress is necessary to raise efficacy. The strategy goal with progress feedback enhanced writing skill, self-efficacy, strategy use, and transfer; the strategy goal without feedback provided some benefits; the paragraph goal offered little advantage over the general goal.

An explanation for these results is as follows. The strategy goal highlights strategy use as a means to improve writing. Students may experience a sense of efficacy for attaining the goal (learning the strategy), which is substantiated as they write. Students who believe they are learning a useful strategy feel efficacious about improving their writing and motivated to apply the strategy, which increase skills and transfer (Schunk, 1989). Providing no explicit goal or a product goal of writing paragraphs may not convey that the strategy is important. Learners who believe that a strategy does not contribute much do not employ it systematically or feel confident about learning (Borkowski, 1985). Progress feedback conveys to students that the strategy is effective, they are making progress, and they are capable of continuing to improve (Borkowski, Weyhing, & Carr, 1988). Progress feedback is especially beneficial during writing because children have difficulty assessing their skills and determining whether strategy use is improving their work (Hillerich, 1985).

In the present study we replicated much of the Schunk and Swartz (1991) methodology with students identified as academically gifted in language arts. One purpose was to determine whether gifted students would derive the same

benefits from strategy goals and progress feedback. Although research has not addressed this issue during writing, other research shows that strategy instruction facilitates gifted students' achievement and transfer (Scruggs, Mastropieri, Jorgensen, & Monson, 1986), and that self-efficacy is positively related to performance (Schack, 1989). There also is evidence that, compared with regular students, gifted students monitor their learning progress and performances better and benefit more from generating their own strategies (Rogers, 1986; Scruggs & Mastropieri, 1985). It seemed possible that the effects of strategy goals and progress feedback would not be as great with gifted students as with nongifted students because the former already might be more strategic and able to derive progress feedback on their own.

A second purpose was to investigate goal orientations. Recent research shows that students' engagement in academic work is motivated by sets of goals (Ames, in press; Elliott & Dweck, 1988; Meece, Blumenfeld, & Hoyle, 1988; Nicholls, 1983). We were especially interested in task and ego goal orientations. Task oriented students are concerned about learning and improving their skills. They adopt learning goals and believe that ability is enhanced through effort. Ego oriented students are concerned about their ability as it compares with that of others. They adopt performance goals of working well enough so teachers and peers will believe they are competent (Meece, 1991).

Postulated to foster a task orientation are instructional conditions emphasizing self-improvement and the value of material to be learned (Meece, 1991). Given that gifted students are academically oriented, we felt they already might hold a task orientation. We also felt, however, that providing students with a strategy goal and progress feedback could increase task orientation because this condition emphasized progress, the development of competence, and the effectiveness of the strategy in promoting learning.

Method

Subjects

Participants were 33 fourth graders from two classes in one elementary school. The 19 girls and 14 boys ranged in age from 9 years 2 months to 10 years 2 months (M = 9 years 7.5 months). Although different socioeconomic backgrounds were represented, children predominantly were middle class. Ethnic composition was 23 White, 6 Black, 2 Hispanic American, 2 Asian American.

Students previously had been classified as academically gifted in language arts by the school district and received about two hours of daily instruction in gifted classes. Students were placed in gifted classes if they accrued at least 98 points based on their score on the Cognitive Abilities Test - Level B (Thorndike & Hagen, 1986) and on their total reading score on the California Achievement Tests - Form E (CTB/McGraw Hill, 1986). Students' scores on each of these tests were converted to percentiles and each percentile had a corresponding point value (e.g., 99th percentile = 50 points, 98th percentile = 49 points). Scholastic performance in language arts also was considered for students earning fewer than 98 points on these two tests; grades were converted to points (e.g., A = 10, A-/B+ = 9).

Pretest

The pretest, which comprised measures of self-efficacy, writing skill, strategy use, and goal orientation, was administered by a tester from outside the school. The self-efficacy test assessed children's perceived capabilities for performing five tasks associated with paragraph writing: generate ideas, decide on the main idea, plan the paragraph, write the topic sentence, write the supporting sentences. The efficacy scale ranged in 10-unit intervals from 10—not sure, to 100—really sure.

The tester explained the distinguishing characteristics and read a sample for each of four types of paragraphs: descriptive, informative, narrative story, narrative descriptive. Children were told that descriptive paragraphs discuss objects, events, persons, or places (e.g., describe a bird), informative paragraphs convey information effectively and correctly (write about something you like to do after school), narrative story paragraphs contain events sequenced in order from beginning to end (tell a story about visiting a friend or relative), and narrative descriptive paragraphs sequence steps in the order to be followed to perform a task (describe how to play your favorite game).

When the tester finished, children privately judged self-efficacy for performing the five tasks for each of the four paragraph types (20 total judgments). For each type of paragraph children judged their capabilities for generating at least five or six ideas, thinking of a good main idea, planning the paragraph (deciding which ideas to include and what order to put them in), writing a clear topic sentence that could be understood by readers, writing clear supporting sentences. Schunk and Swartz (1991) assessed reliability; the test-retest coefficient was $r = .92$.

For the writing achievement test children were given one topic for each of the four paragraph types. Three different forms of the skill test were developed; these forms included the same four paragraph types but different topics. The parallel forms were used on the pretest, posttest, and maintenance test, to eliminate potential effects due to topic familiarity. Reliability of these forms was assessed by Schunk and Swartz (1991); children's holistic scores on the three forms correlated highly (range of $rs = .79-.88$).

The quality of subjects' paragraphs was assessed with four holistic scales that included categories drawn from different sources (Hillerich, 1985;

Odell, 1981; Shell et al., 1989). For each category, ratings were made on a 4-point scale ranging from 1 (low) to 4, for a total skill score ranging from 4 to 16. Categories with their scale end points were as follows: organization (1 = lacks sense or organization, unclear, confusing; 4 = well organized, smooth transitions, main idea expanded); sentence structure and word choice (1 = lacks any sentence structure; 4 = complete sentences, variety of sentence beginnings and structures, precision in word choice); creativity (1 = dull, uninteresting; 4 = lively, unique, exciting, concrete, and vivid); style to fit purpose (1 = no obvious attention to purpose; 4 = uses a style consistent with prescribed purpose). Each paragraph was scored independently by two individuals; their scores were averaged for the data analyses. The correlation between the pretest scores of the raters was $r = .89$; interrater reliability was similar on the posttest and maintenance test.

Paragraphs also were scored for words per T-unit, which is a measure of syntactic fluency commonly used in research (Huot, 1990). A T-unit is a main clause plus attached subordinate clauses (Odell, 1981). This measure is considered to be a reliable indicator of sophistication in writing skill (Hillerich, 1985). Of the 132 paragraphs (four paragraphs for each of 33 students), raters disagreed on the number of words in three paragraphs and on the number of T-units in nine paragraphs. For these paragraphs, ratings were averaged. Comparable figures were obtained on the post- and maintenance tests.

The strategy use instrument assessed children's self-reported use of the steps in the writing strategy (described below). Five scales ranged in 10-unit intervals from 0--not at all, to 100—a whole lot. Scales were labeled, write ideas, pick main idea, plan paragraph, write topic sentence, write other sentences. Children thought about times when they wrote paragraphs and marked how often they performed each step.

The goal inventory included 18 items adapted from Meece et al. (1988). Each item tapped one of four types of goal orientations (number of and sample items in parentheses): task, or the desire to independently master and understand academic work (5 items, "I want to do better than I have done before"); ego, or the desire to perform well to please the teacher and avoid trouble (4 items, "I want the teacher to think I am doing a good job"); affiliative, or the desire to share ideas and work with peers (4 items, "I want to work with my friends"); and work avoidant, or the desire to accomplish academic work with minimum effort (5 items, "I want to do as little work as possible"). The tester told children to decide how well each item described how they usually felt about school. Children judged each item on a 10-point scale ranging from 10—not at all, to 100—very much.

Reliability of the goal inventory was determined using 16 fourth-grade academically gifted children who did not participate in the study. Children completed the instrument twice, two weeks apart. The test-retest coefficients for the four subscales were: .81 (task), .62 (ego), .73 (affiliative), .78 (work avoidant).

Instructional Program

Children were assigned randomly within gender and classroom to one of three experimental conditions: paragraph goal, strategy goal, strategy goal plus progress feedback. Students received 45-minute instructional sessions over 20 days; five days were devoted to each type of paragraph. Children assigned to the same condition met in small groups with a teacher from outside the school.

The procedure during the five sessions devoted to each type of paragraph was identical. At the start of the first session, a tester administered children a measure of self-efficacy for skill improvement. This assessment was identical to that of the pretest except that children judged their

capabilities for improving their skills at the five tasks for the paragraph type to be covered during the next five sessions.

Following this assessment, the teacher gave the goal instructions appropriate for children's experimental assignment and referred to the writing strategy displayed on a poster board:

> What do I have to do? (1) Choose a topic to write about. (2) Write down ideas about the topic. (3) Pick the main idea. (4) Plan the paragraph. (5) Write down the main idea and the other sentences.

The first 10 minutes were devoted to modeled demonstration, in which the teacher verbalized the strategy's steps and applied them to sample topics and paragraphs. Students then received guided practice (15 minutes); they applied the steps under the guidance of the teacher. The last 20 minutes of each session were devoted to independent practice; students worked alone while the teacher monitored their work. The daily content coverage was the same for each of the four types of paragraphs: session 1—strategy steps 1, 2, 3; session 2—step 4; session 3—step 5; session 4—review of entire strategy; session 5—review of entire strategy without the modeled demonstration. Depending on the amount of material to be covered, children worked on two or three paragraph topics per session.

Experimental Conditions

The goal instructions were as follows. To children assigned to the strategy goal and the strategy goal plus progress feedback conditions the teacher said during the first five sessions:

> While you're working it helps to keep in mind what you're trying to do. You'll be trying to learn how to use these steps to write a descriptive paragraph.

These instructions were identical for the other sessions except that the teacher substituted the name of the appropriate type of paragraph.

Children assigned to the paragraph goal condition were told the following at the start of the first five sessions:

While you're working it helps to keep in mind what you're trying to do. You'll be trying to write a descriptive paragraph.

For the remaining sessions the teacher substituted the name of the appropriate paragraph type.

Each child assigned to the strategy goal plus progress feedback condition received feedback 3-4 times during each session. This feedback conveyed that children were making progress toward their goal of learning to use the strategy to write paragraphs. Feedback was delivered by the teacher to each child privately during independent practice with such statements as: "You're learning to use the steps," and, "You're doing well because you followed the steps in order." To ensure this feedback was credible, the teacher provided it contingent on the child using the strategy properly. This progress feedback should not be confused with performance feedback that all children received (e.g., "That's a good idea to include in your paragraph," "You need to write a sentence with this idea").

Posttest and Maintenance Test

The posttest included the same measures on the pretest, as well as measures of strategy value and progress in strategy learning. The self-efficacy, skill, strategy use, and goal orientation instruments were identical to those of the pretest except that a parallel form of the skill test was used. For the progress measure, children privately judged how well they could use the strategy to write paragraphs now compared with when the project began. The 10-unit scale ranged from 10--not better, to 90/100--a whole lot better. The strategy value instrument consisted of a 10-unit scale ranging from 10—not much, to 90/100--a whole lot. Children marked the number

that matched how much they felt the strategy's steps helped them write paragraphs.

The maintenance test was administered six weeks following the posttest. The test included the same measures on the pretest except that a parallel form of the skill test was used.

Results

Means and standard deviations are presented by condition in Table 1. Preliminary analyses of variance (ANOVAs) yielded no significant differences on pretest measures between the conditions, as well as no significant differences on any measure due to classroom or sex of student. Conditions did not differ in the number of paragraphs written during instruction.

Insert Table 1 about here

Posttest self-efficacy, skill, and words per T-unit were analyzed with a multivariate analysis of covariance (MANCOVA); conditions constituted the treatment factor and the corresponding pretest measures served as covariates. The treatment effect was significant, Wilks's lambda = .400, $F(6, 50) = 4.84$, $p < .01$. Each posttest measure was analyzed with analysis of covariance (ANCOVA) using the corresponding pretest measure as the covariate. The ANCOVA results were significant for self-efficacy, $F(2, 29) = 5.16$, $p < .05$, and for skill, $F(2, 29) = 12.46$, $p < .001$.

Posttest means were evaluated using Dunn's multiple comparison procedure (Kirk, 1982). Students assigned to the strategy goal plus feedback condition judged self-efficacy higher than students in the paragraph goal condition ($p < .01$). Strategy goal plus feedback ($p < .01$) and strategy goal ($p < .05$) students received higher writing skill scores than paragraph goal children.

MANCOVA applied to maintenance self-efficacy, skill, and words per T-unit using the corresponding pretest measures as covariates yielded a significant treatment effect, Wilks's lambda = .316, $F(6, 50) = 6.49$, $p < .001$. ANCOVA applied to each measure using the corresponding pretest score as the covariate yielded significant effects for self-efficacy, $F(2, 29) = 4.17$, $p < .05$, and skill, $F(2, 29) = 16.87$, $p < .001$. Strategy goal plus feedback children judged self-efficacy higher than paragraph goal students ($p < .05$). Strategy goal ($p < .05$) and strategy goal plus feedback ($p < .01$) students scored higher on skill than paragraph-goal students; strategy goal plus feedback students outperformed strategy goal children ($p < .05$).

Posttest and maintenance self-reported strategy use scores were analyzed with ANCOVA using the pretest score as the covariate. The posttest ANCOVA was significant, $F(2, 29) = 6.20$, $p < .01$. Strategy goal plus feedback students scored higher thaan children in the other conditions ($ps < .05$).

Posttest and maintenance test goal orientation measures were analyzed with MANCOVA using pretest measures as covariates. The posttest MANCOVA was significant, Wilks's lambda = .342, $F(8, 46) = 4.09$, $p < .01$. ANCOVAs applied to posttest measures yielded significant results for task orientation, $F(2, 29) = 11.36$, $p < .001$, and ego orientation, $F(2, 29) = 7.06$, $p < .01$. Strategy goal and strategy goal plus feedback children scored higher than paragraph goal students on task orientation ($ps < .01$). Strategy goal plus feedback students scored significantly lower on ego orientation compared with strategy goal ($p < .05$) and paragraph goal ($p < .01$) students. The maintenance test MANCOVA also was significant, Wilks's lambda = .406, $F(8, 46) = 3.27$, $p < .01$. ANCOVAs yielded significant results for task orientation, $F(2, 29) = 4.89$, $p < .05$, and ego orientation, $F(2, 29) = 4.30$, $p < .05$. Strategy goal plus feedback students scored higher than paragraph goal children on task orientation ($p < .05$) and lower on ego orientation ($p < .01$).

The analyses for each of the four self-efficacy for skill improvement measures yielded similar results, so they were averaged to form one measure. This measure was analyzed with ANCOVA using pretest efficacy as the covariate, and the result was significant, $F(2, 29) = 12.70$, $p < .001$. Strategy goal plus feedback students judged efficacy for improvement higher than strategy goal ($p < .05$) and paragraph-goal children ($p < .01$); strategy-goal students judged self-efficacy higher than paragraph-goal children ($p < .05$).

ANOVAs applied to the progress and strategy value scores yielded significant results: progress $F(2, 30) = 3.29$, $p < .05$; value $F(2, 30) = 7.13$, $p < .01$. Strategy goal plus feedback students judged progress and value higher than paragraph goal students ($ps < .01$).

Correlations were computed among the posttest measures (including self-efficacy for improvement), and among the maintenance test measures. Correlations attaining significance at the $p < .01$ level are as follows. Self-efficacy for improvement related positively to posttest efficacy, skill, strategy use, task orientation, progress, and strategy value, and negatively to ego orientation. Posttest efficacy was positively correlated with skill, strategy use, task orientation, progress, and strategy value; skill related positively to task orientation and strategy value. Self-reported strategy use was positively correlated with task orientation and progress. The higher students scored on task orientation, the higher they judged progress and strategy value; strategy value and progress correlated positively. Among the maintenance test measures, self-efficacy correlated positively with skill, strategy use, and task orientation; skill related negatively to ego orientation; and task orientation correlated positively with strategy use and negatively with work avoidant orientation.

Discussion

This study shows that providing gifted students with a goal of learning a writing strategy and feedback on their progress raises achievement outcomes. These findings are important given that, compared with students in regular classes, gifted students are more strategic and often prefer to generate strategies on their own (Rogers, 1986; Scruggs & Mastropieri, 1985). These results cannot be due to instructional differences, because all students were taught the strategy and received the same amount of practice. Our findings are consistent with those of Schunk and Swartz (1991), who note that a strategy goal highlights strategy use as a way to improve writing. When children believe they are learning a useful strategy they may feel efficacious about improving their writing and be motivated to apply the strategy, which increase skills and transfer (Borkowski, 1985; Pressley et al., 1990; Schunk, 1989). In contrast, children given a goal of writing paragraphs may question the strategy's importance. Learners who do not believe a strategy contributes much do not employ it systematically or feel confident about learning (Borkowski, 1985).

Progress feedback conveys to students that the strategy is effective, they are making progress in learning, and they are capable of improving their skills (Borkowski et al., 1988). The present benefits of progress feedback are important because gifted students generally monitor their work (Rogers, 1986). With writing, however, it may be difficult for children to determine on their own whether their writing is improving. Future research might examine if gifted students benefit from progress feedback in other domains (e.g., mathematics).

Ego orientation scores were the highest on the pretest, but the strategy goal plus feedback treatment increased task orientation and decreased ego orientation. Although this study cannot determine the factors responsible for

these shifts, it is possible that the enhanced perceptions of efficacy and learning progress brought about by the strategy goal and progress feedback led these students to focus on their writing improvement. Future research should explore in depth the goal orientations of gifted students and how they are affected by instructional factors. Research also could compare judgments of gifted students with those of students in regular classes. Meece et al. (1988), for example, found that fifth and sixth graders in regular classes judged task orientation higher than ego orientation.

This study supports the idea that self-efficacy is influenced by performances but is not merely a reflection of them (Bandura, 1986). Experimental conditions did not differ in the number of paragraphs completed during instruction but children who received strategy goals plus feedback judged self-efficacy higher. This study also shows that self-efficacy is positively related to skillful performance. Personal expectations for success are viewed as important influences on achievement by different theories (Bandura, 1988; Covington, 1987; Weiner, 1990).

This research has implications for teaching gifted students. The type of intervention we employed easily can be incorporated into writing instruction. As students become more capable writers, they could make personal modifications to the strategy to reflect their writing preferences. Peer conferences, which are commonly employed in writing programs (Scardamalia & Bereiter, 1986), could be used to provide progress feedback. In short, there are a number of ways to implement an instructional program that includes strategy goals and progress feedback to help foster gifted students' writing skills, self-efficacy, and strategy use.

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Table 1

Means (and Standard Deviations)

Measure	Phase	Experimental Condition: Paragraph Goal	Strategy Goal	Strategy Goal + Feedback
Self-Efficacy	Pretest	60.5 (10.8)	63.0 (14.2)	64.3 (7.8)
	Posttest	73.1 (12.9)	80.5 (13.8)	89.7 (7.8)
	Maintenance	71.7 (12.4)	76.8 (18.5)	88.1 (7.3)
Skill	Pretest	9.5 (1.7)	9.2 (1.7)	9.3 (1.1)
	Posttest	10.3 (2.2)	11.9 (1.5)	13.3 (1.2)
	Maintenance	10.0 (1.5)	11.6 (1.9)	13.0 (1.2)
Words per T-unit	Pretest	7.5 (1.0)	7.7 (0.8)	7.2 (1.2)
	Posttest	7.5 (1.3)	7.8 (1.4)	7.2 (0.7)
	Maintenance	7.3 (1.1)	8.2 (1.2)	7.4 (0.7)
Strategy use	Pretest	59.5 (14.7)	60.7 (9.4)	60.0 (8.7)
	Posttest	67.5 (10.0)	68.0 (14.7)	83.6 (13.2)
	Maintenance	69.5 (14.5)	72.2 (12.2)	83.1 (15.1)
Goal inventory - task	Pretest	76.7 (10.1)	78.7 (12.8)	76.2 (13.8)
	Posttest	73.1 (11.2)	85.5 (9.3)	91.2 (8.1)
	Maintenance	74.8 (14.3)	83.3 (12.4)	90.2 (8.0)
Goal inventory - ego	Pretest	97.0 (4.1)	92.4 (9.3)	94.0 (11.9)
	Posttest	92.8 (8.9)	91.0 (8.7)	78.5 (12.1)
	Maintenance	94.3 (7.4)	84.7 (16.6)	76.5 (16.2)

Table 1 continued

Measure	Phase	Experimental Condition: Paragraph Goal	Strategy Goal	Strategy Goal + Feedback
Goal inventory - affiliative	Pretest	78.5 (17.6)	80.8 (12.1)	79.4 (16.0)
	Posttest	77.0 (20.8)	72.5 (19.0)	81.2 (14.4)
	Maintenance	76.2 (21.9)	71.5 (19.6)	77.4 (16.5)
Goal inventory - work avoidant	Pretest	53.8 (20.0)	50.5 (21.0)	51.1 (19.1)
	Posttest	50.4 (11.2)	57.1 (22.6)	40.4 (24.6)
	Maintenance	58.9 (15.9)	46.0 (24.2)	44.5 (28.6)
Self-efficacy for improvement	Instruction	62.3 (9.1)	73.7 (13.7)	84.9 (9.2)
Progress	Posttest	60.5 (19.7)	69.1 (28.1)	84.5 (16.3)
Strategy value	Posttest	55.5 (25.0)	72.7 (28.0)	92.7 (14.2)

Note. $N = 33$; n per condition = 11. Self-efficacy means represent the average judgment per item; range of scale is 10 (low) to 100. Skill means represent the total scores on the holistic scales; range is 4 (low) to 16. The mean for words per T-unit is the average number per paragraph. Strategy use means represent average judgment per item; range is 0 (low) to 100. Goal inventory means represent average scores; range is 10 (low) to 100. Self-efficacy for improvement means represent average scores for descriptive (week 1), informative (week 2), narrative story (week 3), and narrative descriptive (week 4) paragraphs. Range on the progress and strategy value measures is 10 (low) to 100.